

National Marine and Freshwater Education Wananga - Conference



Whakapaumahara Marae, Whananaki, Northland
Wednesday 7th - Friday 9th October, 2009

Mountains to Sea - Engaging communities in marine and freshwater conservation.

Purpose

An inspirational professional development and networking opportunity for all those involved or interested in freshwater and marine conservation, education and community engagement.

Objectives

- Provide a forum for marine and freshwater educators to talk about education for sustainability initiatives & projects.
- To provide professional development.
- To provide a forum to discuss ideas on how to engage communities in marine and freshwater conservation.
- Ensure strong delivery of Experiencing Marine Reserves (EMR) and Whitebait Connection (WBC) concepts around New Zealand.
- Launch the 'Wet Feet' freshwater environment inquiry based learning resource.

Wananga Highlights:

- Show & tell presentations
- Poor Knights Trip
- Networking!
- Inspiration!

Sponsors and Supporters

EMR would like to acknowledge funding support from the Department of Conservation and the Tindall Foundation. EMR would also like to acknowledge the Whananaki Marae committee & Dive! Tutukaka for supporting this wananga.



Department of Conservation
Te Papa Atawhai



Thanks to the Mountains to Sea Conservation Trust - Trustees

Thanks to the Fergusons and Kit - our local cooks!

Proceedings Day 1:

List of participants & introductions

| Name | Organisation/position | Email | Favorite marine or freshwater species | Wananga Goals |
|-----------------|---|--|---------------------------------------|--------------------|
| Samara Nicholas | Mountains to Sea Conservation Trust (MTSCT) EMR Director | samara@emr.org.nz | Nudibranch | Keep things moving |
| Kim Boyle | MTSCT WBC Director | kim@emr.org.nz | Seahorse and Woody Cased | |

| | | | | |
|-------------------|--|--|--|---|
| | | | Caddis | |
| Nicki Wakefield | MTSCT | nicki@emr.org.nz | Oarfish and Black Mudfish | |
| Vince Kerr | MTSCT | vincek@igrin.co.nz | | |
| Roger Grace | MTSCT | gracer@extra.co.nz | Spotted grouper and packhorse crayfish | Meet people, and make marine reserves! |
| Megan Wilson | Parklands School | meganw@parklands.school.nz | Scallop | Learn about EMR programme for engaging people into Tonga Island MR |
| Jade Berman | Victoria University of Wellington | Jade.Berman@vuw.ac.nz | Sponges | |
| Helen Ough Dealy | Department of Conservation Bay of Island | hodealy@doc.govt.nz | Triplefin | Compliance, biosecurity. Project Island Bird Song |
| Rebecca Goffin | The Royal Society of New Zealand | Rebecca.Goffin@royalsociety.org.nz | Koura | Engaging science in monitoring with environmental focus |
| Bridget Armstrong | DOC Napier | barmstrong@doc.govt.nz | Octopus and Mayfly | |
| Barbara Curtis | DOC Napier | bcurtis@doc.govt.nz | Young People | Hoping to be able to inspire at least one person |
| Puti Delamere | Te Kura Kaupapa Maori a Rohe o Mangere | | stingray | Here to learn |
| Margaret Robinson | Te Kura Kaupapa Maori a Rohe o Mangere | | Love them all | Teaching at Kura |
| Lisa Kiri | Te Kura Kaupapa Maori a Rohe o Mangere | lisa@mangereku.ra.school.nz | Kina | Teacher planning |
| Victoria Travers | WWF-NZ | vtravers@wwf.org.nz | Kina | |
| Polly Bulling | Department of Conservation Invercargill | pbulling@doc.govt.nz | Giant kokopu | Kakariki programme, engagement of landowners and students into wetlands |
| Sione Tupou | Te Kura Kaupapa Maori a Rohe o Mangere | | | |
| Rebekah Caldwell | DOC Hauraki | rcaldwell@doc.govt.nz | Mangroves | EMR coordinator, interested in harbour care groups |
| Krishna Duffin | New Hauraki EMR Cooridnator | | Scallops | To learn about EMR |
| Anita Murrell | Hawke's Bay | anita@hbrc.govt | Inanga | Methods in |

| | | | | |
|---------------------------|---|--|---|---|
| | Regional Council | .nz | | engaging business owners into stormwater management |
| Ocean, Baxter, Issac | Whananaki School | office@whananaki.schoolzone.net.nz | Ocean - Fur Seal, Baxter - Paua Isaac - Shark | |
| Sioux Campbell | MTSCT | chameleon.1@xtara.co.nz | | |
| Richard Robbins | Far North Environment Centre | richard.robbins@ecocentre.co.nz | mudfish | Catchment programme Hills 2 Ocean - H2O, wishes to engage schools |
| Barry Lee | MERC EMR | Barrylee@merc.org.nz | Blue mao mao | Learn new ways to engage people into the marine reserve |
| Sue Barker | DOC Auckland | sbarker@doc.govt.nz | Kermadec land crab. | Engage community and young people |
| Erana Walker | Te Kura Kaupapa Maori O Te Rawhitiroa | era_wal@terawhitiroa.schoolzone.net.nz | | |
| Murray Palmer | Tai Rawhiti/Gisborne EMR & WBC coordinator | tairawhiti.info@clear.net.nz | Estuarine Isopod | Soak up northern influence, knowledge and reo for use in connecting earth sciences, marine and freshwater education |
| Cherie Te Rore | EMR/WBC assistant, Tai Rawhiti/Gisborne | cherieterore@xtara.co.nz | Kahawai, Mangroves | Interested in looking after resources, marae reserve as an educational resource |
| Doug Te Wake | Department Of Conservation | dtewake@doc.govt.nz | Orca & Giant Squid | |
| Kylie McDowell | DOC Maori Cadet - Kaitaia | kmcdowell@doc.govt.nz | | |
| Ninja Herewini | DOC Maori Cadet - Kaitaia | nherewini@doc.govt.nz | Snapper & Tuna | |
| Henare Winterburn Chapman | DOC Maori Cadet - Kaitaia | kmcdowell@doc.govt.nz | Paua | |
| Matiu Mataira | DOC Maori Cadet - Whangarei | mmataira@doc.govt.nz | Snapper & Tuna | To learn as much as possible and pass onto other people |
| Pehi James Potaka | Nga Mokopuna Ngati Kahungunu/Te Taitimu trust | Pehitane.Potaka@police.govt.nz | Pickled paua | Turning the tide, engaging with tamariki |

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|--|--|--|--|--|
| Zack Makoare Plus 6 Tamariki Billy Makoare Adam Kaye Kellie May Makoare Aririu Strickland Tauhe Tipene Kaweroa Taylor Pehitane Potaka | Nga Mokopuna Ngati Kahungunu/Te Taitimu trust | zac.makoare@toh.iwi.nz | Wheke | Education that is whanau based, engaging whanau in healing and wellness of tangaroa |
| Craig Hayman | Kamo High School | Hayman.c7@gmail.com craighayman@kamohigh.school.nz | Orca | Planning for Monday! Seeking local knowledge |
| Leon Candy | DOC Whangarei | lcandy@doc.govt.nz | Gannet | Support for DOC maori cadets |
| Melanie McColgan | Waimaori Streamcare Programme Co- ordinator | titi711@gmail.com | Inanga | |
| Remana Henwood | Te Roopu Taiao O Utakura | raywen@igrin.co.nz | Torewai/Freshwater Mussel and Kanae | involved in conservation to restore health of Lake Omapere and the Utakura Valley catchment |
| Roshahn Smith | Greenpeace | sharnys@msn.com | Cetaceans | Learning about the marine environment |
| Neha Saigal | Greenpeace | nsaigal@hotmail.com | Blue Fin Tuna | New to this learning |
| Laura Torre | Papakura District Council | Ltorre@papakura.govt.nz | Humpback Whale & eels | Monitoring, education in schools and encouraging restoration |
| Richelle Kahui- McConnell | Auckland Regional Council - Ecocare Coordinator | Richelle.kahui-mcconnell@arc.govt.nz | Shark | Wishes to fix the Great Pacific Garbage Patch |
| Sarah Sheeran | Auckland Regional Council | Sarah.sheeran@arc.govt.nz | | Seeking MTS holistic focus in teaching about the environment at Auckland Regional Parks |
| Irene van de Ven | NIWA | i.vandeven@niwa.co.nz | Decorator crab | Interested in community based conservation |
| Diane Bell | Dargaville Intermediate | diane@leint.schoolzone.co.nz | Manta ray | Research and contacts for teaching fellowship |

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|------------------------|--|--|----------|---|
| | | .net.nz | | next year - riparian management with Kaipara District Council |
| Fred Lichtwark | Whaingaroa Harbour Care | fred@harbourcare.co.nz | Lamprey | |
| Greer Mawdsley | | mawdsley@slingshot.co.nz | | |
| Buc Cullen | Whitebait Connection, He Kakano Kaiako, Waimarie Nursery | | | Growing cultural heritage and getting the messages out there |
| Rachel Wakefield | WBC Webmaster | rachi.wakefield@gmail.com | | |
| Eugene Waetford | Kaumatua Whananaki marae - | | | Eugene - Everything in the sea was mine. Future looks like it's in good hands, someone must care for the creatures of the sea. As soon as see the creatures under the sea you wonder; who is protecting it. It is important to only take enough. Eugene belongs to Whananaki and Great Barrier. You can come to him to ask about this area. |
| Ngaro Waetford | Kaumatua Whananaki marae - | | | |
| Allan Moore | Ngatiwai Trust Board, Marae committee | | Crayfish | Min Fish Scallop fishery work plan for Northland. No point in discussing figures until the habitat is taken care of. Ngatiwai is here to listen and learn. |
| Nupere Ngawaka 'Jiggs' | Kaumatua Whananaki marae - | | | Says he's DOCs worst enemy, happy to be hosting wananga |

Welcome and Housekeeping

Samara, Nicki and Kim - Introduction of wananga purpose and goals.

2pm Show and Tell

Mountians to Sea Conservation Trust - presenters Samara Nicholas and Kim Boyle

The Northland-based Mountains to Sea Conservation Trust (MTSCT) was established in 2002, as a charitable umbrella and support organisation for the Experiencing Marine Reserves (EMR) marine education and Whitebait Connection (WBC) freshwater education programmes. These are both leading models in education for sustainability in New Zealand and now available nationally.

EMR is a national programme of experiential learning about marine conservation. EMR's independence, professional delivery, marine reserves focus and provision of a range of learning styles make it unique within New Zealand. Since its introduction in Northland in 2002, programme uptake has continued to increase throughout the country. The Department of Conservation (DOC) is a foundation partner of the Mountains to Sea Conservation Trust, and has supported the development of the EMR programme since inception. The Tindall Foundation now also supports the programme's national expansion.

EMR empowers schools and communities by providing the equipment and expertise for a hands-on learning experience in the ocean. The programme involves investigating marine biodiversity and local marine environments before venturing to a fully-protected marine reserve. After this experience, students are able to compare unprotected and protected areas and are supported to put their knowledge into action within the community.

The EMR powerpoint presentation is found here:

http://www.emr.org.nz/information.php?info_id=34&emrsid=9214224a287a29259258092f6c8e5000

The Whitebait Connection is an experiential learning programme of action promoting community involvement in healthy freshwater ecosystems and catchment management. It began in Northland in 2000 and has spread to various areas of New Zealand with the support of DOC and other sponsors. The programme is linked to the Drains to Harbour (DTH), Experiencing Marine Reserves (EMR) and Mangrove Discovery (MD) programmes, promoting a whole catchment focus.

Engaging school students, teachers, parents and other community members in local freshwater management projects supports understanding of the life-sustaining capacity and critical place of freshwater ecosystems. People are involved in ecologically-based, practical enquiry learning about streams, rivers and catchments. Restorative action is facilitated and supported.



3:30pm

Show & tell - Marine

Whananaki School

Students Issac, Baxter and Ocean talked about their time on EMR and involvement in the 'Meet the Locals' TV series <http://tvnz.co.nz/meet-the-locals/meet-locals-2008-episode-132-video-2319931>

The M.A.D. Marine Programme - Sue Barker

MAD grew out of a 2008 Department of Conservation (DOC) survey, which found that those least engaged with conservation were teenagers. However, being Generation Y, teenagers are the most ready to engage with conservation, given exposure to it and encouragement to lead.

The ARC's M.A.D. Make a Difference, a successful education programme that encourages teenagers to take action for their environment, provided an ideal opportunity for DOC to work in partnership with the ARC to address the issue. In turn, M.A.D. was looking to include a marine focus. Spurred on by her experience on the M.A.D. (Make a Difference) Marine

Programme, one student created a [blog](#) as a platform for students to exchange ideas about how to protect our oceans.

EMR Wellington

The Wellington Experiencing Marine Reserves partnership programme is coordinated by the Wellington Marine Conservation Trust, who operate the Marine Education Centre in Island Bay, Wellington, with support from the Ponoke Area of the Department of Conservation, the Wellington City Council, Mountains to Sea Conservation Trust, the Tindall Foundation, Oceanics NZ (*who generously provided nice warm wetsuits*) and the team from Splash Gordon Dive Centre. Jade Berman is currently the main coordinator. For more info <http://www.octopus.org.nz/EMR.html>

Greenpeace presentation: Markets campaign and Sad Fish tour - presenter Roshahn Smith

In May this year Greenpeace released a report, *'While stocks last - Supermarkets and the future of our seafood'* (www.greenpeace.org.nz) outlining the harrowing reality of our fisheries in New Zealand and the urgent need for implementation of truly sustainable seafood policies by New Zealand supermarkets; Progressive Enterprises and Foodstuffs.

Implementing a sustainable seafood policy would involve supermarkets removing all seafood listed on the Greenpeace Red Fish Guide; (www.greenpeace.org.nz/sos), because they are endangered, vulnerable species, overfished, or caught by destructive, short-term and wasteful fishing practices such as bottom trawling. Greenpeace is asking supermarkets to trace where their fish is from and how it is caught, so they are able to clearly label all of their seafood. Consumers are then able to make informative, educated decisions about the kai moana they are buying.

It is our right as consumers to know that the seafood we are buying from our supermarkets is truly sustainable. As consumers we are in a huge power position, as it is us who ultimately control what is, and is not stocked in supermarkets. So if you don't know where the seafood you are buying is from, start asking!

Our Sad Fish mascot has been visiting markets, festivals and supermarkets in New Zealand to educate consumers about truly sustainable seafood policy, and encourage supermarkets to adopt one. Sad Fish has visited over 20 supermarkets in every city in Auckland and conversed with over 1000 consumers. He is now extending his communication nation-wide; <http://www.facebook.com/home.php?#/pages/Sad-Fish/133087533156?ref>

Please help us in our quest to save our seas! Everybody can make a difference. Please demand your local supermarket implement a sustainable seafood policy before it is too late, and we lose this vital resource forever.

Please contact Roshahn Smith on 0212389217 or ocean.team.nz@greenpeace.org for any further information on our campaign. For information on the Sad Fish tour of New Zealand please see the Facebook link above.

3:30pm

Show & tell - Fresh

Lake Omapere Restoration - presenter Remana Henwood

Since 1986 lake Omapere has deteriorated to a state of eutrophication. A group was formed in 2002, the Lake Omapere Project Management Group, to develop strategies and take actions to reverse this process. With the help of landowners the lake is almost ring-fenced. Riparian planting of the lake edge and waterways has been ongoing during this time. The summer of 2008-09 monitoring showed very low levels of blue green algae and nitrogen, however there are still high levels of phosphate. In November 2008 NIWA did a survey of the Tuna population in the lake and the Utakura River; while there were few large tuna, the juvenile stock looked to be in great health and numbers. The groups have also developed a strategy for the lake trustees based on Waiora. The main elements are: Ma uta ki tai (from the mountains to the sea), matauranga, kotahitanga, tinorangatiratanga. This involves continued monitoring by NRC and ongoing practical restoration work over the entire catchment area.

Waicare in Papakura - presenter Laura Torre

Stuffed eel models of long fin and short fin eels accompany lessons on Tuna. The lesson includes eel food web and life cycle and threats to eels. The game "SLIME!" is a fun way to test student's eel knowledge. See more on the Wai Care website: www.waicare.org.nz

Royal Society of New Zealand Fellowship - presenter Diane Bell

RSNZ teacher fellow hosted by Kaipara District Council, she is interested in fresh water and does marine education while teaching at Dargaville Intermediate and had participated in the EMR programme before. Fred talked with KDC last year and visited schools as well. The kids know the connection between land use and health of the water as they had been on the EMR programme. Many kids were from farms and were blown away by Fred's presentation. Kids went home and told Dad etc. This sparked an interest in Dianne, and pursued time for more research on this topic. Two catchments, Wairoa and Tangawohine will be the focus of her fellowship with the goal of setting up a model to encourage landowners to do a riparian restoration. Her role will be to communicate with council and encourage a similar relationship/project model developed in other regions such as Whaingaroa.

Rebecca Goffin Showed a range of resources on offer to schools to support them carrying out waterway monitoring activity. A list of the resources can be found on the EMAP website <http://www.emap.rsnz.org/resources.php> these include educational videos, macroinvertebrate ID sheets and the loan of waterways monitoring equipment to support school projects.

5:00pm **Show & tell - Mountains to Sea**

Hawke's Bay Marine Education Programme Barbara Curtis and Bridget Armstrong - talked about their Napier Marine and Freshwater programmes. They acknowledged the concept of EMR in the setting up and delivery of components' of the Hawke's Bay Marine Education Programme. Their programme is successful due to the collaboration of many organisations.

Te Taitimu Trust - presenter Zac Makoare

http://emr.zartaj.co.nz/images//wananga%2009/poor_knights_by_zac.pdf
http://emr.zartaj.co.nz/images//wananga%2009/te_taitimu_trust_promo_pack.pdf

EMR in Gisborne

Delivery of the programme to the Gisborne Region is under the umbrella of Earth Centre, the regional coordinators are Joe and Murray Palmer. Support for this delivery came from the national body for EMR the Mountains to Sea Conservation trust with funding for the national expansion from the Tindall Foundation. There is still an urgent need to continue to promote the value of the Te Tapuwae o Rongokako Marine Reserve (est. 1999), it's critical for community to experience with their own eyes, as this is essential to achieving marine protection in their own areas and building community support for the existing marine reserve.

Your Choice - presenter Anita Murrell

The choices you make can have a significant effect on our environment. Each year there are about 70 incidents of pollution into our streams, lakes and beaches. It's not only



Barbara Curtis

chemicals like cleaning products and oil that are a problem - just 2 litres of milk can kill all the fish in an entire stream. Most of these spills are avoidable by making just a few basic changes around your work site. Hawke's Bay Regional Council is pleased to offer the Your Choice programme to your business completely free of charge. Your Choice will assist your business to meet best practice standards and identify potential on-site risks and ways to reduce your company's liability. Council staff will personally visit every participating business to help with developing or updating a site plan including spill containment, labeling of drains, training of staff and preparing a spill management plan.

Reducing your risk can be cheap and easy. The Your Choice information pack includes everything you need to reduce your risk of a spill. We've included tools to help get your staff involved and a check list for minimum best practice (the "Top 5").

The quality of our environment is Your Choice.

Rangatahi - presenter Erana Walker

Erana has been involved in the restoration project of Waitaua awa in Whangarei. View the student made clip on this project on-line at <http://www.theoutlookforsomeday.net/films/2007/035/>.

Show and tell presentation was based around the project and all the things that we have achieved through networking and connecting with other people around the country.

Maori Cadets

A small presentation was given describing DOC's new pilot programme "Taurira Kaitiaki Taiao - Maori Cadetship" Each cadet (Kylie, Ninja, Henare, and Matiu) described what their job entails.



Doug Te Wake, Maori Cadets and Whananaki Marae

Committee members

6pm
7pm

Dinner

Keynote speaker - Fred Litchwark (Whaingaroa Harbour Care Group)

A successful model of catchment management that improved fresh and marine waterways. Connecting land and sea.

The Whaingaroa Harbour is 525km² and 175 km foreshore.

Fred has a sheep and beef farming background as well as 7 years as a bottom trawler fisherman from the Mokau - Manakau harbours out to 14 km limit. Reefs in these environments are now destroyed due to these fishing practices. Maui dolphin were caught in those days also. As a commercial fisher he was also a keen diver and occasionally a fisheries officer, this was how he came to know the health of his harbour. Fishing effort was 1 fish per 18 hours, and known as the worst harbour for fisheries. Today, effort:catch ratio has decreased to two per hour.

Whaingaroa Harbour Care Group was established with no money and relied on community support. It looked to protect the nursery within the nursery of the harbour. Twelve months after fencing mudflats, crabs were back. Allowing animals into wetlands is not only bad for the environment but also bad for the farmer due to stock loss. Start a nursery, provide free plants to farmers and free fences, farmers were now biting. Wainui farm park was formed when community would not stand to

have the reserve sold as an 800 house subdivision. Whitebait were caught by Fred's grandmother for rose gardens and chicken food. They disappeared, now planting has helped the whitebait come back. Liverfluke is carried by snails. Regional council subsidised 30% of putting in troughs for farmers. The fence protects the estuary. Inanga spawning grounds are also protected. Corridors from mountain to sea formed by riparian planting. Toxins showed up in the leachate from an old landfill. Farmer agreed to have wetland installed, heavy metals and toxins were absorbed by Ti Kouka leaves. Urban developers are now utilizing this stormwater polishing method. Every blade of grass does NOT equate to money. Farming background committee members on the Wainui committee saw the benefits and was the first to adopt best riparian practice. Farmers use riparian management because it stacks! The harbour care group formerly used community task force people, today the trust employs 5 local people. Can do the job more efficiently with well trained full time employees, than when working in partnership with many. Huge \$100,000 - 200,000 turn over today. Lamprey pops up in Whaingaroa. Benefits to farmers - farmers spread word about benefits - less stock loss in wetlands - less vet bills - less soil loss - less digger bills - less weed control if fenced and planted.

Increases land value - up stock health - up productivity - up pasture quality - up stock rates - up fertiliser control.

Increases pasture quality and productivity is just like mowing lawns. Excluding wet areas also isolates stock from fresh water diseases. Mangroves do not provide easy salt lick as formerly believed. Headwaters of Raglan harbour are critical to stop the sediment at the source. Best practice eg, riparian zones, starting at headwaters etc are not strictly followed as the project progresses. It always depends on what you can get from the landowners. The trust charges rich farmers to subsidise poorer landowners riparian work. Don't fertilise plants or steak them. The plants are just grown to a suitable size, this lessens the work. Native plants do not do well being loved to death. Native plants provide shelter and resting place for stock. There is only 5kms of Whaingaroa harbour foreshore left to plant. If you can't fertilise it with a truck you should fence it off.

Through people experiencing the benefits you are able to sell concepts to people eg marine reserves, without mentioning it even once. Production increases without causing damage to the marine environment. Can't go wrong with that.

The Hamilton City Council received 900 farmer submissions to reinstate the clean stream programme. Sewerage ran straight into Raglan harbour until 12 months ago. Restoration of 20% of the harbour's riparian zones resulted in a hundred fold improvement in the harbour's health while sewerage was still going into the harbour.

Be proactive and work on the easy problems first. Urban stormwater is the next big topic. Townies and stormwater runoff, lack of maintenance by council. Grasswale drains are great as long as they don't get sprayed. Sediment stormwater polishing ponds. Haybales are okay if there is follow up maintenance. As a harbourcare group they also check that resource consent rules are followed. A lesson learned in the Waitotuna was following the wholesale removal of willows the creek closed up. Water locked into riverbanks eroded creek bank.

Sediment - mangrove relationship. With less sediment there is less mangroves in the harbour. Abundance of seagrass is improving also eg juvenile snapper are reliant on seagrass meadows, snapper only migrate over a 150m area before they are 4 years old. Snapper fishery on west coast 97 million masses of baby mullet grazing on seagrass. Care group carries out biodiversity checks on resource consent hearings. Birds return to riparian plantings. Farmers are preaching benefits to other farmers. Ecotourism. Esplanade reserves are technically installed as sites to improve water quality. Activities here should only be in line with improving water quality.

8- 9pm **Marine and freshwater education and conservation discussion panel**
How have you most successfully engaged communities?

Panel members: Sarah Sheeran, Roger Grace, Rebecca Goffin, Zac Makoare, Fred Litchwark, Richelle McConnell - Kahui

Question 1: What is your best community engagement? 5 mins

Sarah - as chair of NZAEE Auckland, 3 years returned, membership of 20 people dwindling. In 1989 the international phenomenon of Green Drinks started. Green Drinks are now held in 360 cities throughout the world. Branding and a logo was developed then, ARC hosted the first one in Auckland.

250 people showed up. Today 2000 people are on the invite database and 500 different organisations. Examples are Greenpeace hosted koha for drinks on Rainbow Warrior, Eco Stone Street Party. Business people are regular attendees. ARC ecoevents website - all different sectors NZAEE has over 100 members including corporates.

Rebecca - Rebecca Goffin - RSNZ school groups angle. Andrew Innes driving an EMAP catchment management programme in Dunedin. One key catchment to invest all their energy works. Schools all along catchment come together discuss progress, maintenance and partnerships. Blog data site for on-line virtual data and status of catchment. Relies on facilitation and support. Gear for monitoring important. Three SHMAK kits available and monitoring workload is divided. Science focus important in the beginning. GLOBE protocols used as way to collect data see www.globe.gov and loaded onto an international database capable of drawing graphs of data gathered.

Zac - Relationships are the key to his work. Building relationships with government agencies, using families to approach, whanau based approach. In a recession times are hard because government budgets are tight. Although if the kaupapa is strong enough money and sponsorship will be drawn to any project at end of day. If we can not look after tangaroa - whenua we will not be who we want to be. True kaitiaki is more than just a word, understanding the spiritual side is also as important. Utilise sand and wood to tell a story. Children are strong under maori lore, manakitanga and kaitiakitanga. Remind yourself that you are talking to kids. Reciprocation is important - do the same for others as you would like. Heaps of in kind work is essential to support your passion.

Fred - Engaging whole community into harbour care during a recession, needed workforce and made most of the work for the dole scheme. Put the trouble kids back into mahi for the environment. Not all work, two days work, three days reflection and going fishing. Bring pride into your place. Community can all celebrate together. Commercial fishers bring fish for hui, farmers bring the beers. It's the in kind and passion that keeps the project alive.

Richelle - As in Green Drinks sharing resources between sectors is important. Provide a free drink and nibble. Engaging with Auckland! the trouble is there is not enough local pride in some cases. Kaitiakitanga is considered an obligation; find the connection wherever you go - always must find the values and connection. Provide the opportunity for performing as an example of engagement.

Roger - example of engagement is the eyes on the Whangateau Harbour exhibit. Seven pictures of thirty prints exhibit started last seaweek with sponsorship from many organisations. The exhibit celebrated the natural values of the Whanagteau. The harbour care group also produced and circulated a Ten point action plan. Maximise harbour action potential. The small catchment has very little silt from sand flats in upper harbour. The rare ecosuccession from Kahikatea forest to salt marsh is also found in this special place. Last summer saw an 80% cockle reduction due to disease and heat stress.



9pm Why do we need no take zones? - presented by Roger Grace

Over the last 100 years big snapper, kingfish and other top predators have been fished out. They have important effects on the entire ecology that are seen when top predators are removed. Hapuka used to be common when fishing off the rocks, and are now considered a deep sea fishery. In no-take zones everything is protected. Only by offering total protection can we restore the natural ecology status.

One example of a changing fisheries model is that for snapper. They are so affected that their decline is altering the ecology. Snapper are the most well studied fish in New Zealand. The largest loss of snapper was between the 1920s and 1940s when trawlers were commercial. Today we are at a small percentage of the previous abundance, from 270,000 tons to less than 30,000 tons. The fisheries management calculations select the lowest aged fish stock for the maximum sustainable yield. Maximum sustainable yield is often calculated at 20 percent of the virgin biomass, this is where fish stocks are supposed to grow the fastest. It is on the knives edge most of the time. One small mistake and the seemingly endemic poor management results in an overfished fish stock. The curve also produced by the maximum sustainable yield calculations take little account of the overall ecology. Roger advocates fishing at 50% of the virgin biomass for an overall more sustainable fishery, where the fish are larger. Another example of changing perceptions is that toward kina barrens. Kina barrens were formerly considered a normal feature of the north east coast until the total protection of the Goat Island marine reserve. What was found is that kina barrens are actually an artifact from fishing, where the large predators of kina being crayfish and snapper have been removed, allowing kina densities to increase so much that they out eat their primary food source which is kelp. Aerial photos can be valuable in indicating the change in kelp distribution that may be attributed to kina barrens. Fish numbers multiply rapidly following formation of a fully protected no take marine reserve. Kina barrens still abound at Mimiwhangata which is a marine park where recreational snapper take is uncontrolled. Removing large snapper may have un-researched social behaviour repercussions. Although Goat Island marine reserve is 30 years old, the recruitment age and abundance may not be close to the natural structure. At the Tawharanui marine park the rules are similar to a no take marine reserve. Kina barrens have all been eliminated within the boundaries, while they are found immediately outside the boundaries. Establishment of Tawharanui made immediate and dramatic change on the prominence of kina barrens. Crayfish have also increased in abundance and show change in behaviour - they do not hide. A survey conducted by Roger and Vince Kerr on the east coast of the north island between Whananaki and Helena Bay showed the abundance of legal crayfish was at 1.75 kg/ha. This correlates to less than 1% of the natural abundance. Female crayfish have ten days to find a suitable large male to fertilise her eggs. If this time passes and she is unable to find a large male, she will reabsorb her eggs at the risk of becoming infertile.

10pm Spotlighting in the Te Wairahi Stream
Field trip leader - Kim Boyle

Many freshwater species including Inanga, Red Finned Bullies and Tuna were seen spotlighting in Te Wairahi. Spotlighting is a great learning tool!

Day 2

7am Breakfast
8am Leave for Tutukaka
9.30am Karakia
 Depart for Poor Knights on Perfect Day with Dive! Tutukaka
www.diving.co.nz

10:15am Activities at the Knights included a Discover Scuba (Scuba taster for those who have not got dive tickets) with Dive! Tutukaka, snorkeling with students as part of the snorkeling instruction unit standard and MANTA boarding (a specialised board allows you to navigate under the water, kinda like wake boarding in the snorkel position under water!) Manta tow link

http://www.marinenz.org.nz/index.php/resources/video_category/C9332/





marineNZ Roger Grace



marineNZ Roger Grace



marineNZ Roger Grace



marineNZ Roger Grace



marineNZ Roger Grace



marineNZ Samara Nicholas



marineNZ Samara Nicholas



marineNZ Samara Nicholas



Barbara Curtis

6pm Gourmet BBQ and fire on the beach - Conference Dinner!

8:30pm EMR through history
DVD set from the beginning in 2002 - 2008. Email samara@emr.org.nz for your EMR momento (this DVD is of special significance to Whakapaumahara Marae, as a Kaumatua only son featured as a EMR volunteer and tragically lost his life at sea when he was only 21, Koha was my best mate, the first EMR video is dedicated to him). Third edition DVD available on-line



http://www.marinenz.org.nz/index.php/resources/video_detail/experiencing_marine_reserve_s/

Day 3



8.00am **'Mountains to Sea Café' - facilitated sessions by Sioux Campbell**

Purpose: To undertake critical thinking about and reflection on our existing actions for marine and freshwater protection and identify how we can most effectively sustain or extend those over time. Each facilitator to end each session by identifying 5 key points/messages.

World Wetlands Day

highlights reflected to the group were:

- Change the date of World Wetlands Day - suggestion made to write a letter to Fish and Game proposing a date change to mid April to coincide with the school term
- Mountains to Sea Trail - looking at the progression of salinity

- create a ripple effect in landowners - organise a **Fred Tour** showcasing successes of good riparian management to landowners
- Virtual restorations to inspire action within the local area
- utilise TV to highlight World Wetlands Day, such as Wild Food and the Outdoors with Geoff
- highlighting biomass production of wetlands to appeal to landowners

What's working and what's not - freshwater

Working

- Education - changing attitudes
- Local beach clean ups
- Youth leadership
- Experiencing Marine Reserves (EMR) programme
- Mobilisation of communities
- Media coverage - info transfer
- Targeting specialised groups - using community organisations
- Awareness - show what does work
- Evaluation and measuring
- Credibility - finding champs & representatives from each group
- Networking
- Community Ownership & involvement
- Experience - first hand - long term
- Goals - network of marine reserves
- No take marine reserves & Mataitai
- Key people coordinating locally & nationally
- Involving student and targeting schools
- Grassroots
- Local approaches
- Tangible opportunities
- Supporting what's going on
- Schools/kids/formal education
- Experiential 'In' the environment

Not working

- Goals - not broken down with realistic action
- Not enough spawning/developing ideas
- Political complications
- Not linking with civics/citizenship - acknowledging that the work is inherently political
- Not all working towards a coherent vision which strategies fall out of, waiting for govt to set the agenda

General Themes

collaboration and communication is important

- engagement of entire community, important to ask: "are we engaging everyone?"
- hands on activities
- comparing pristine and degraded freshwater environments as a learning tool

Highlights communicated by the group are

Working

- education with conservation outcomes
- local context for learning
- targeting audiences - schools work!
- experiential opportunities, tangible learning and tangible actions
- supporting what is already going on

Not working

- lack of links to basic civics - what we do is political and actions are limited in effectiveness without understanding political aspects
- lacking coherent vision eg. 10% of our coastal waters in marine reserves. We let the government set the agenda when it should be the community

Seaweek Event Ideas 7 - 14 March

The theme is fishing

Ideas included:

- Early planning and engaging
- Online poster for everyone to download and print

- Celebration - free music
- Engage Universities (enviro studies)
- Open Days (e.g. NIWA aquaculture farm)
- Beach Clean Ups
- Use MarineNZ forum to discuss ideas and share events
<http://www.marinenz.org.nz/index.php/forums/>
- Use local and Maori radio
- Media contact lists for each of the regions
- National Networking - planning collaboration and promotion
- Snorkelling with the Stars event (Northland & Auckland competition to learn to snorkel with Oscar K)
- Engage local hapu/iwi organisations and runanga involvement
- Fishing competition using photo's only
- Sustainable cooking event, prepare fish caught yourself, use a celebrity chef. Radio interviews etc Guest speakers & displays - promo recipes
- Use celebrities
- Articles about seaweek in magazines such as fishing news, women's weekly, foodtown cuisine
- Multi- agency approach
- Interaction with media
- Adopt a boat ramp project for Schools
- On-line national competition
- Soft baits workshop/awareness presentation
- National seaweek - invite Maori TV to interview children - March competition% turnout per population wins prize
- Children invite community & local MP and media to view what they have done, possibly involving a March thru town - link with schools nationwide
- 1. National Essay Writing Competition: Subject Description possibly: Our fishermen and women, our fishing industries, our ocean going tourism and associated industries are dependant on plentiful fish stocks and yet we still don't have 10% of the needed (20-30%?) of our coastline in marine reserves, why not? [Or something along those lines]
- 2. Art competition: subject possibly along the same lines as essay.
- 3. If university level included then maybe a short film or cartoon strip.
- Each school (level ?) interested in participating to choose one essay and/or art piece for entry into the competition for prize. Money for school equipment seems to draw more entries as school as a whole gains the benefit.

Highlights reflected by the group were:

- communication and networking - national push and focus can be a struggle, but local grassroots focus and community events organised by community organisations is more feasible
- fishing focus for 2010 - engage and plan early - Vince and Roger proposed to design a poster around this theme - balance of sustainability focus eg image of someone returning a 20 pound snapper
- events with high media appeal such as including celebrities such as EMR snorkeling with the stars
- engage māori communities right from the outset, not telling ideas but brainstorming together
- involve local radio and TV
- make PDF of posters so organisations can print themselves in lieu of a nationally printed poster
- utilise the Marine Educators mailing list and forum found at www.marinenz.org.nz

How can we best work collaboratively?

- Ideas included
- using the internet to connect and interlinking websites such as EMR, WBC, NZE, Marine NZ and GPNZ through user forums for discussion, documentation, and databases for contacts and organisations
- Local media databases
- Don't overkill emails
- Nation strategies, local coordinators reporting to a national coordinator
- Skype, chats and conferences to make the most of networking effectively
- Linking various community groups, scientists
- Use awareness raising methods in local community together
- Economic impact of Leigh report, see marinenz.org.nz

- Google calendars - what is happening, linking groups and events
- List of wananga participants for networks formation
- Website list of providers
- DOC and community collaboration - problems accepting diversity of opinions at times
- Networks dependent on the individuals, as opposed to organisations
- Sharing of resources
- Individual coordinators
- Need central coordination to make it relevant on national level, and have the mandate to bring organisations together
- Representation is not always suitable eg, in committees
- Opening the door! Inviting others to give what they can, outline projects and brainstorm together
- Form visions TOGETHER!
- Students that get out there! Face to face interactions
- Need for a student coordinator - youth coordinator for discussion with rangatahi, someone with wide networks and can

connect students with opportunities and organisations/individuals

- Webpage on regional council website, listing up to date resource people, organisations
- Youth environment council
- Networks independent of Enviroschools
- Improving the basic understanding of the language of collaboration, consciously using negotiation and mediation skills and language for genuine collaboration
- One on one contact
- Gathering the right people to spread the messages
- Dawn till dusk!
- Communication skills
- Thinking outside the square
- Taking the time to collaborate and form relationships
- Clear visions
- Key people to bring organisations, advocates, action leaders, and scientists together
- Be more inclusive
- Get political! - Watch this space - Marine Advocates Society

Highlights from discussion were:

- ID target audience for action and learning
- Reporting back - showing off!
- taking time to form relationships with other organisations and individuals
- collaborative relationships do not stop
- skype & i chat technologies enable face to face collaboration and can have many more outcomes than sending 10 emails
- up to date database for local media and politicians to contact
- get political! Help form the proposed Aquatic Advocates Society with clear objectives and vision, eg 10% marine reserves by 2020
- reliant on individuals and their personal networks and passion
- go to person or list for resources including people and agency resources that support student action

Future proofing sticky note exercise - what will we do (actions)

Notes were placed on the mountains to sea banner.

Actions included:

- Help to facilitate an Auckland marine advocates wananga - action orientated
- Stay energised and passionate by focusing on positive outcomes
- Inclusiveness - develop a vision with EVERYONE collaboratively in a cultural, social, economic HOLISTIC context
- Seaweek - involve Greenpeace to promote and start some thing grassroots with university



- Make poster for seaweek with Roger
- Find links to implement EMR in my school
- Approach Fred Lichtwark and Fish and Game about doing a roadshow for 2010 World Wetland Day
- Start a recycling programme at school
- Plant 7000 plants along the Waitaua awa
- Get out spotlighting in streams as much as possible
- Plant land, plant waterways, plant mangroves - Mauri
- Coordinate another 'young leaders' forum taking these findings further
- I will organise an ecofair in my community to promote Mountains to Sea conservation
- Source funding to run Wet Feet in Doubtless Bay catchment Schools
- Support EMR national coordinators event more
- Snorkel with more people at the Poor Knights (provides inspirational opportunity)
- Get Kamo High school involved in WBC planting programme
- Buy sustainable fish
- Lead more community grassroots movements and educations
- Promote marine reserves and sustainable use of the ocean & waterways to workmates and family
- Educate children & adults on value of aquaculture
- Organise marine displays during school gala days and community events
- Take the time to strengthen existing relationships and actively investigate new throughout time not just when needed i.e. events
- Write short info text for inclusion in school newsletter
- Keep DTH lesson in class to monitor Otangarei Stream
- Teaching others with new found knowledge
- Restore land, restore wetlands, restore sea, life Mauri
- Invite person with mana in area I'm concerned with to attend Whangateau harbour experience 16/Jan and 2010 EMR
- Work with my school to plan an action for seaweek and then do it
- Contact FNDC to put 'Drains to Sea' on all stormwater drains in Kaitaia
- Help on summer EMR days
- Actively communicate with other groups with similia interestes
- Create a vision for the water network group to retrigger activity and generate discussion
- Promote truly sustainable fishing on tour - inspire people
- Work re-write of goal for Marine advocacy Network, goal principla design
- I will support Victoria engage with surfers
- Support victoria April Marine advocacy meeting
- Be more aware of environment and marine preservation
- Write DOC Auckland conservancy marine strategic advocacy paln
- Optimise our existing resources
- Ask mum if we can clean the river
- Reach schools in farming communities with WBC
- Celebrate - Good times are infectious and a good buzz
- Establish dedicated student leadership support services
- Engage with surfers 4 boardriders association
- Join a community group in y private capacity - to provide expertise and resources without ;work; agendas
- Contact DOC re planting day
- Continue advocating for the better future for Whangateau Harbour
- Encourage people to vote in local and govt elections
- Keep thinking outside the square
- Practice kanohi ki te kanohi and 'cups of tea' communication
- Build relationships with community organisations
- Label stormwater drains around my house area
- Tiakina nga tamariki
- Involving wider range of contacts in marine education
- Combine Greenpeace campaign with seaweek themes
- Replacement of plastic revolution
- Clean up the Pacific rubbish give
- Visit websites for personal and professional knowledge, pas this on to students
- More adult focus activities
- Get a no fishing zone around Horseshoe island, whangateau, for purpose of educational snorkelling opportunity in estuary
- Grow my local marine programme with other user groups
- 10% marine reserves
- More use of Maori resources

- Restoration craws creek
- Work on one stop shop on marinenz forum www.marinene.org.nz
- Source funding for EMR tasman
- Organise this event every year
- Engage schools in a freshwater programme
- Use existing models - involve more schools
- Join Aquatic Advocacy network
- Plant a stream and start a Waicare group
- Get signs on boatramps advertising the Tawharanui marine park and its rles
- Encourage supporters of Tiritiri Matangi to take an interest in marine protection around the island sanctuary
- Take more initiative to get Greenpeace to work and meet with more grassroots organisation , so we call all work together
- Get involve with seaweek and educate as many communities about marine conservation
- Find 3 specific areas throughout areas where long term community restoration
- Be active o the marine education forum - sharing knowledge
- Share in ongoing hui on our marae
- EMR in Tasman area
- Meet and work with Mel from Waimaori - EMR & Waimaori - side by side Mountains to sea conservation Trust
- Contact Sioux to celebrate Doc marketing campaign . For seaweek capatilise on a single advocacy message

Day 3:

1:00-2:20pm Poroporoake - Farewell in Whare Kai

All present had the opportunity to reflect, acknowledge, and give their farewells before departing on the final field trips. A gift of a framed photo taken of local student Ocean McKinnon snorkelling at the Poor Knights during the 2008 EMR wananga was presented to Whakapaumahara Marae. Highlights and some key sentiments from the poroporoake included:

- those **giving** carry the greatest mana
- this work and kaupapa includes looking after mahinga kai *collecting food* practices
- networking
- strengthening of understanding of the EMR concept
- greater understanding of establishing working partnerships with DOC
- importance to connect with people on a whanau level, as opposed to OSH level
- best way to get understanding in older people is through the tamariki
- it is important to have **unity**, between organisations otherwise we will fall apart, like the fingers of one hand
- **dare to dream**
- overcoming a fear of snorkeling and diving
- going away from this wananga with a pillar of support even when working in isolation from other environmental educators
- the gathering was especially powerful as it joined people from the top of the north to the bottom of the south
- linking Whakapaumahara marae of the Ngati Wai people to caring for the water - *Wai Ora*
- **connecting with whanaunga** and acknowledging whakapapa links made during the wananga
- welcoming people and making them feel comfortable
- meeting inspirational people and overcoming fears
- team playing
- great to see so many Māori participants and te reo speakers
- privilege to mingle with rangatira of Whakapaumahara
- the strong with from Whakapaumahara that we continue to talk with one another, keep coming and bringing the Mountains to Sea perspective so Whakapaumahara can keep up with the country
- Mountains to Sea focus is important, even though some may not agree with marine reserves
- **I will never through a smoke butt again**
- enjoyed the vegetarian kai

Field trips

Option 1. Experiencing Marine Reserves - snorkel instructor

Professional development - gain snorkel unit standards - 4383 - Snorkel Dive with Safety and 8296 - Instruct clients in Snorkel Diving (7 credits total).



Option 2. Whitebait Connection

Learn about how WBC engages the community in freshwater conservation and restoration through two fantastic environmental education initiatives - the Drains to Harbour stormwater education programme, and the WBC catchment restoration programme. We will visit the interesting Te Wairahi Stream in Whananaki where you can participate in and discuss WBC instream engagement/ He Kakano project with Kim Boyle and riparian planting methods with Fred Litchwark. Rebecca Goffin will also demonstrate equipment and techniques that EMAP uses to monitor waterways with schools and community groups.

Related documents

http://emr.zartaj.co.nz/images//wananga%2009/healthy_streams.pdf
http://www.emr.org.nz/information.php?info_id=99&emrsid=3cd8cb1d52258c8a9859919ed0e76b0c

Option 3. Experiencing Marine Reserves

Visit the Whangarei Harbour Marine Reserve and learn how EMR utilises it to engage and raise awareness of marine reserves/conservation and to encourage community buy-in. Meet the locals and learn about our successful community guided snorkel days. View full notes

http://emr.zartaj.co.nz/images//wananga%2009/whmr_field_trip_info.pdf

Compliance and community buy in has been a challenge for the new marine reserve site at Motukaroro, part of the Whangarei Harbour Marine Reserve. The Experiencing Marine Reserves Programme of the Mountains to Sea Conservation Trust supported by DOC Whangarei Area Office came up with a bold and innovative approach involving over 1000 students, community members and a helicopter. See for yourself in this video clip a world first and a new way to raise awareness of marine conservation.



<http://www.youtube.com/watch?v=9GAWmkpLwO8>

Last word...

These notes are provided as a record for you but also as a prompt for taking action in your own context. The workshop sessions are designed to firstly initiate thinking about how you can be most effective and secondly, how to become most effective. So don't file the notes away - use them to enhance the wonderful work you're currently doing and make whatever changes you can for the better. And remember those personal actions you posted - no time like the present!

Contact samara@emr.org.nz for further information